# BRUHATH BANGALORE MAHANAGARA PALIKE

## Yalahanka ELECTRICAL DIVISION

## PRE MEASUREMENT BOOK

**Name of work: :-** Replacing burntout and deteriorated UG cables by AB Cable From Bellahalli to Reva College in ward no 05.

**Name of Contractror of nature of Agency:-** M/s Prashanth Electricals

**Job Code No:- 005-21-000095**

**Ref no and Date of commencement of work:-**:-EE(ele)/YZ/W.O/000006/2021-22 Date 17/11/2021

**Measurement Book No:** 2874/21-22 **Page No:** 257326 — 331

Bill NO :- 1St & Final Bill

| Sl. No. | Description of item | | Unit | Present Measurements | | |
|---|---|---|---|---|---|---|
| | | | | Qty | Tender Full Rate | Cost |
| 1 | Fabricating, supplying and erecting swaged **tubular pole** of height ...Mtr having three sections, and providing two coats of red oxide paint and finished with two coats of enamelled paint of approved quality and colour and M.S. base plate of suitable size welded at the bottom of the pole(as per IS) and 40mm dia GI / flexible PVC pipe of 1 mtr length fitted to the heavy gauge polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole/200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB / DP switch, The pole shall be erected in cement concrete work (1:2:4) including excavation and refilling of planting depth of the pole to the ground level and the coping CC shall be up to 0.6M above ground level as per IS 2713 - 7.Erection of heavy duty pole on Footpath / median 9Mt (5Mt Hb,165.1mm dia 4.85mm thick x2M Hm, 139.7mm dia 4.50mm thick x 2M Ht,114.3mm dia 3.65mm thick) as per IS 410 SP 32 | | Nos | 5 | 8434.80 | 42174.00 |
| 2 | Supplying and fixing telescopic M.S. bracket fabricated by using 0.5m length 4" dia telescopic M. S. pipe, with 2" dia 1.5m long M. S. bracket and are welded with suitable angle, using 6mm thick M. S. sheet, grip bolts & nuts, as required, suitable for 9 to 12 Mtrs. M. S. tubular pole, with necessary two coats of painting, with all other accessories Single bracket 1.5 Mtr. Length | | Nos | 5 | 766.80 | 3834.00 |
| | Kodigehalli Underpass | 5 | | | | |
| 3 | Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires. | | Each | 5 | 111.82 | 559.10 |
| 4 | Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 5) 3.5 core 25 sqmm | | Mtr | 497 | 115.02 | 57164.94 |
| 5 | Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. 7) 25 sqmm to 75 sqmm | | Rmt | 497 | 22.36 | 11112.92 |
| | VE/05/RCR/15/S | 22 | | | | |
| | VE/05/HMR/22/S | 10 | | | | |
| | VE/05/HMR/55/2 | 10 | | | | |

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|---|---|---|---|---|---|---|
| | VE/05/HR/TC/158/0 Hegadenagara Main road | 10 | | | | |
| | Near National Institute of public Co-operation & Child Development (1st Cross)Tubular Pole No-04 TO 11 KV RCC Pole | 50 | | | | |
| | Near Navachetana Hospital road (3rd Cross) | | | | | |
| | Tubular Pole No 03 TOTubular Pole No 04 | 55 | | | | |
| | Tubular Pole No 04 TO Tubular Pole No 05 | 55 | | | | |
| | Tubular Pole No 05 TO Tubular Pole No 06 | 55 | | | | |
| | Tubular Pole No 06 TO Tubular Pole No 07 | 55 | | | | |
| | Tubular Pole No 07 TO Tubular Pole No 08 | 55 | | | | |
| | Tubular Pole No 08 TO Tubular Pole No 09 | 55 | | | | |
| | Tubular Pole No 09 TO 11 KV RCC Pole | 65 | | | | |
| | Total | 497 | | | | |
| 6 | Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) 2) In soil (ordinary) | | Mtrs | 398 | 48.56 | 19326.88 |
| 7 | Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. 2) 50x50x6mm | | Per Mtr | 28 | 210.87 | 5904.36 |
| 8 | Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. ( Icu = Ics) THREE POLE, 1) 100Amps 25kA. | | Each | 4 | 2894.67 | 11578.68 |
| 9 | Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 4) 100Amps | | Per Mtr | 12 | 223.01 | 2676.12 |
| 10 | Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete. 1) 14SWG | | Mtr | 35000 | 0.26 | 9100.00 |
| | Kattigenahalli cross to Reva collage VE/05/RCR/15/S | | | | | |
| 11 | Supplying and fixing hylum plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc., and fixing on existing wood or metal box using N.F. screws. | | Sqcm | 10000 | 0.15 | 1500.00 |
| 12 | Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia | | No | 4 | 1916.81 | 7667.2 |
| 13 | Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required.25x3mm GI strip | | Mtrs | 25 | 47.92 | 1198.0 |

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| 14 | Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV.40mm | Mtrs | 0 | 214.06 | 0.00 |
| 15 | Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.25Sqmm | Nos | 0 | 223.65 | 0.00 |
| 16 | Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.10. sqmm | Mtrs | 10 | 73.48 | 734.80 |
| 17 | Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring. 4 sqmm | Mtrs | 395 | 5.75 | 2271.25 |
| 18 | Hiring of 35 tons capacity Crane for releasing and refixing of High Mast | Hrs | 10 | 350.17 | 3501.70 |
| 19 | Supplying & Fixing of 250W/400W High Pressure Sodium Vapour tubular Lamp with Xenon filled gas with luminous efficiency of greater than 140 lumen/watt or initial lumens of greater than 55000 lumens & avg rated life greater than 26000 hrs. & minimum starting temperature of (-) 40 deg C & Hot restrike time <60 Sec with CCT 2000K . Operating voltage range from 180V to 265V, 50Hz AC power Supply | No | 15 | 1157.23 | 17358.45 |
| 20 | Supplying & Fixing of High Intensity Discharge Electro Magnetic ballast suitable for Mercury Vapour Lamp with Class H insulated copper wire. Operating voltage range from 180V to 265V, 50Hz AC power Supply. Ballast/Choke for Mercury Vapour Lamp - 250 Watts | No | 15 | 1351.48 | 20272.20 |
| 21 | Supplying & Fixing of Ignitor Suitable for 70 to 400 Watts SV/MH fittings. Operating voltage range from 180V to 265V, 50Hz AC power Supply | No | 15 | 367.42 | 5511.30 |
| 22 | Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features<br>1) Main Control Unit ( Mother board ) : Handles controlling , data handling and other communication process.<br>2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit<br>3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching<br>5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components. | Nos | 4 | 32908.50 | 131634.00 |

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| | Kattigenahalli cross to Reva collage VE/05/RCR/15/S | 1 | | | | |
| | Opp # 50, Eent & Woods, Hegade Nagara Main road VE/05/HMR/22/S | 1 | | | | |
| | KNS collage Thirumenahalli VE/05/HMR/55/S | 1 | | | | |
| | VE/05/HR/TC/158/0 Hegadenagara Main road | 1 | | | | |
| 23 | Supplying and stringing of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A. 5) 3 X 25 + 1 X 25 + 1 X 16 SQ.MM | | Per Mtr | 2497 | 113.10 | 282410.70 |
| 24 | Stringing of 1.1kV grade aerial bunched 3 core cable of XLPE insulation of size (3x95) (for Phase conductor) + (1x70) (insulated messenger neutral) + (1x25) for street light control. | | Mtrs | 2497 | 14.35 | 35831.95 |
| | VE/05/HMR/106/S TO 105/S | 33 | | | | |
| | VE/05/HMR/106/S TO 107/S | 33 | | | | |
| | VE/05/HMR/107/S TO 108/S | 33 | | | | |
| | VE/05/RCR/83/S TO 84/S | 48 | | | | |
| | VE/05/RCR/84/S TO 85/S | 48 | | | | |
| | VE/05/RCR/85/S TO 86/S | 48 | | | | |
| | VE/05/RCR/86/S TO 87/S | 48 | | | | |
| | VE/05/RCR/87/S TO 88/S | 48 | | | | |
| | VE/05/RCR/20/S TO 19/S | 50 | | | | |
| | VE/05/RCR/20/S TO 21/S | 50 | | | | |
| | VE/05/RCR/21/S TO 22/S | 50 | | | | |
| | VE/05/RCR/22/S TO 23/S | 50 | | | | |
| | VE/05/RCR/23/S TO 24/S | 50 | | | | |
| | VE/05/RCR/24/S TO 25/S | 50 | | | | |
| | VE/05/RCR/25/S TO 26/S | 49 | | | | |
| | VE/05/RCR/26/S TO 27/S | 50 | | | | |
| | VE/05/RCR/27/S TO 28/S | 50 | | | | |
| | VE/05/RCR/28/S TO 29/S | 50 | | | | |
| | VE/05/RCR/29/S TO 30/S | 52 | | | | |
| | VE/05/RCR/30/S TO 31/S | 50 | | | | |
| | VE/05/RCR/31/S TO 32/S | 48 | | | | |
| | VE/05/RCR/32/S TO 33/S | 50 | | | | |
| | VE/05/RCR/33/S TO 34/S | 50 | | | | |
| | VE/05/RCR/34/S TO 35/S | 53 | | | | |
| | VE/05/RCR/64/S TO 65/S | 53 | | | | |
| | VE/05/RCR/65/S TO 66/S | 53 | | | | |
| | VE/05/RCR/66/S TO 67/S | 53 | | | | |
| | VE/05/RCR/67/S TO 68/S | 53 | | | | |
| | VE/05/RCR/68/S TO 69/S | 53 | | | | |
| | VE/05/RCR/69/S TO 70/S | 50 | | | | |
| | VE/05/RCR/70/S TO 71/S | 53 | | | | |
| | VE/05/RCR/71/S TO 72/S | 53 | | | | |
| | VE/05/RCR/72/S TO 73/S | 53 | | | | |
| | VE/05/RCR/73/S TO 74/S | 52 | | | | |
| | VE/05/RCR/74/S TO 75/S | 53 | | | | |
| | VE/05/RCR/75/S TO 76/S | 53 | | | | |

CE&E

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| | VE/05/RCR/76/S TO 77/S | 53 | | | | |
| | VE/05/RCR/77/S TO 78/S | 53 | | | | |
| | VE/05/RCR/78/S TO 79/S | 53 | | | | |
| | VE/05/RCR/79/S TO 80/S | 53 | | | | |
| | VE/05/RCR/88/S TO 89/S | 60 | | | | |
| | VE/05/RCR/89/S TO 90/S | 61 | | | | |
| | VE/05/RCR/90/S TO 91/S | 60 | | | | |
| | VE/05/RCR/91/S TO 92/S | 60 | | | | |
| | VE/05/RCR/92/S TO 93/S | 60 | | | | |
| | Near Navachetana Hospital road (3rd Cross) | | | | | |
| | RCC Pole TOConical pole | 30 | | | | |
| | Conical Pole TO Tubular Pole No 01 | 60 | | | | |
| | Tubular Pole No 01 TO Tubular Pole No 02 | 55 | | | | |
| | Tubular Pole No 02 TOTubular Pole No 03 | 55 | | | | |
| | Tubular Pole No 03 TO Tubular Pole No 04 | 55 | | | | |
| | | 2541 | | | | |
| | LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018 | | Nos | 79 | 55.59 | 4391.61 |
| | RCC Pole clamp - MS (Dwg No. BESCOM/GM/QS&S/30 Dtd 24.11.2018) | | Nos | 79 | 33.87 | 2675.73 |
| | Supplaying of Piercing Connector Suitable for 16 Sqmm - 95 Sqmm AB Cable - Street Light Connections | | Nos | 158 | 105.44 | 16659.52 |
| | Supplaying of Dead End Clamp/Anchor Clamp Assembly 25 to 95 Sqmm Bare Messenger(Exclusive of pole clamp and eye hook) | | Nos | 10 | 86.26 | 862.60 |
| | Installation of Insulation piercing connector for main to street light Main:16-95sqmm,Tap :1.5-10sqmm(EP95) | | Nos | 158 | 37.70 | 5956.60 |
| | Fixing of Universal/ Dead end Hook | | Nos | 10 | 81.15 | 811.50 |
| | Supplay of Suspension Clamp Assembly 16 to 70 Sqmm Bare Messenger(Exclusive of pole clamp and eye hook) 284845 No | | Nos | 79 | 125.24 | 9893.96 |
| | Erection of Suspension Clamp - 25 to 95 sqmm bare messenger | | Nos | 79 | 81.15 | 6410.85 |
| | Laying of UG Cables by trenchless technology by adopting horizontal boring & Drawing of cable including preparation at site With HDPE Pipe i) Normal soil 5/6" bore size | | Nos | 68 | 541.87 | 36847.16 |
| | **Total Rs** | | | | | **757832.12** |
| | Add GST @ 12% on item No 1 to 21 Rs 223445.95 | | | | | 26813.51 |
| | **Total Rs** | | | | | **784645.63** |

**ERTIFICATE:**

1.This is certify that the work done is saticefactorily.
2.This is certify that the bill amount calimed in this bill Has not claimed in any of the previous bills.

Assistant Executive Engineer (Ele)
BBMP, Bangalore
7/6/22

Junior Engineer(Elec)
Yalahanka Division

Asst Exe Engineer(Elec)
Yalahanka Division

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು (ವಿದ್ಯುತ್)
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು